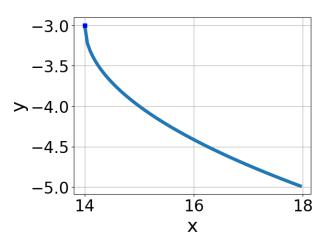
1. Choose the equation of the function graphed below.



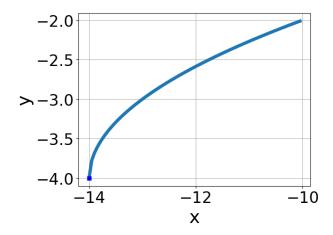
A.
$$f(x) = -\sqrt[3]{x+14} - 3$$

B.
$$f(x) = \sqrt[3]{x - 14} - 3$$

C.
$$f(x) = -\sqrt[3]{x - 14} - 3$$

D.
$$f(x) = \sqrt[3]{x+14} - 3$$

- E. None of the above
- 2. Choose the equation of the function graphed below.



A.
$$f(x) = -\sqrt[3]{x+14} - 4$$

B.
$$f(x) = -\sqrt[3]{x - 14} - 4$$

C.
$$f(x) = \sqrt[3]{x+14} - 4$$

Progress Quiz 9

D.
$$f(x) = \sqrt[3]{x - 14} - 4$$

- E. None of the above
- 3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-15x^2 + 63} - \sqrt{24x} = 0$$

- A. $x_1 \in [1.4, 4.4]$ and $x_2 \in [1.6, 3.4]$
- B. $x \in [-3, 0]$
- C. $x_1 \in [-3, 0]$ and $x_2 \in [-0.5, 2.2]$
- D. All solutions lead to invalid or complex values in the equation.
- E. $x \in [1.4, 4.4]$
- 4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-5x + 2} - \sqrt{8x + 8} = 0$$

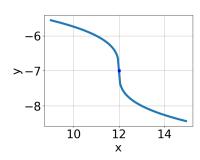
- A. $x_1 \in [-0.55, -0.31]$ and $x_2 \in [0.4, 7.4]$
- B. $x \in [0, 1.15]$
- C. All solutions lead to invalid or complex values in the equation.
- D. $x_1 \in [-1.33, -0.99]$ and $x_2 \in [0.4, 7.4]$
- E. $x \in [-0.55, -0.31]$
- 5. What is the domain of the function below?

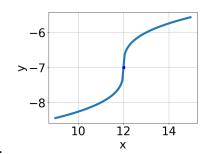
$$f(x) = \sqrt[5]{-6x + 7}$$

- A. $(-\infty, \infty)$
- B. The domain is $(-\infty, a]$, where $a \in [1.02, 1.48]$

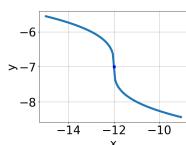
- C. The domain is $(-\infty, a]$, where $a \in [0.74, 0.96]$
- D. The domain is $[a, \infty)$, where $a \in [0.21, 1.13]$
- E. The domain is $[a, \infty)$, where $a \in [1.03, 1.43]$
- 6. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x + 12} - 7$$

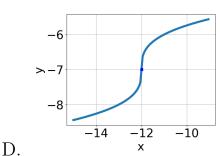




A.



C.



- В.
- E. None of the above.
- 7. What is the domain of the function below?

$$f(x) = \sqrt[7]{-9x + 3}$$

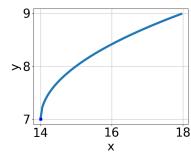
- A. The domain is $[a, \infty)$, where $a \in [2, 5]$
- B. The domain is $(-\infty, a]$, where $a \in [0.3, 1.1]$
- C. The domain is $(-\infty, a]$, where $a \in [2.8, 4.1]$
- D. The domain is $[a, \infty)$, where $a \in [-5.67, 2.33]$
- E. $(-\infty, \infty)$

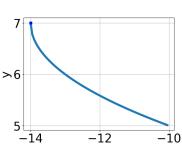
8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-36x^2 - 10} - \sqrt{-42x} = 0$$

- A. $x_1 \in [0.15, 0.65]$ and $x_2 \in [0.6, 1.6]$
- B. $x \in [0.7, 0.85]$
- C. $x \in [0.15, 0.65]$
- D. All solutions lead to invalid or complex values in the equation.
- E. $x_1 \in [-0.47, -0.2]$ and $x_2 \in [-2.6, -0.7]$
- 9. Choose the graph of the equation below.

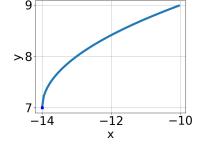
$$f(x) = \sqrt{x - 14} + 7$$





D.

C.



>6 16 14 18

E. None of the above.

A.

В.

10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{9x - 9} - \sqrt{-5x - 3} = 0$$

A.
$$x_1 \in [-0.87, 0.4]$$
 and $x_2 \in [1, 5]$

B.
$$x \in [-0.11, 0.48]$$

- C. All solutions lead to invalid or complex values in the equation.
- D. $x \in [0.78, 1.87]$
- E. $x_1 \in [-0.11, 0.48]$ and $x_2 \in [1, 5]$